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ABSTRACT

This executive summary presents the major results of the longitudinal evaluation of Project Developmental Continuity (PDC). A Head Start demonstration project initiated by the Administration for Children, Youth and Families (ACYF) in 1974, the PDC aimed to stimulate the development and implementation of comprehensive programs linking Head Start centers with local elementary schools in order to provide continuous developmental support through the third grade for children from low-income families. Full-fledged implementation of PDC programs began in 1976 at 13 sites distributed across the Head Start regions and the Indian and Migrant Program Division. Findings of the evaluation suggest that (1) the program model intended by ACYF was not fully realized anywhere, (2) local versions of PDC had few effects on parents and teachers that were likely to enhance children's social competence, and (3) children's social competence was not generally enhanced by their program participation. In conclusion, reasons the evaluation failed to demonstrate PDC's effectiveness are explored. (RH)

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# *PROJECT DEVELOPMENTAL CONTINUITY EVALUATION*

# *FINAL REPORT*

# EXECUTIVE SUMMARY

***SEPTEMBER 1982***

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Administration for Children, Youth and Families
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## PREFACE

Project Developmental Continuity (PDC) was a Head Start demonstration project initiated by the Administration for Children, Youth and Families in 1974. ACYF's aim in PDC was to stimulate the development and implementation of comprehensive programs linking Head Start centers with local elementary schools to provide continuous developmental support through third grade for children from low-income families. Full-fledged implementation of local programs began in 1976 at thirteen sites distributed across the Head Start regions and the Indian and Migrant Program Division. Federal support for local programs terminated in the spring of 1981.

A longitudinal evaluation of one cohort of children, who entered Head Start in the fall of 1976 and finished third grade in the spring of 1981, was an integral part of the project. The evaluation has been conducted by the High/Scope Educational Research Foundation in two phases. Phase I (1974-1978) involved documenting the process of initial program planning and implementation and determining the feasibility of conducting a longitudinal study. Phase II (1978-1982) involved continuing documentation of program implementation and longitudinal assessment of impacts on parents, teachers, classrooms, and children.

This executive summary presents the major results of the longitudinal evaluation of PDC and is based on the Final Report of the PDC Evaluation:

Bond, J. T. ***Outcomes of the PDC Intervention, Volume I and Appendices: Final Report, Project Developmental Continuity Evaluation.*** Ypsilanti, MI: High/Scope Educational Research Foundation, 1982.

Wacker, S. ***The Process of Program Implementation in PDC, Volume II: Final Report, Project Developmental Continuity Evaluation.*** Ypsilanti, MI: High/Scope Educational Research Foundation, 1982.

These and all interim reports are available through the Educational Resources Information Center, ERIC. Marginal notes in the text of the executive summary refer the reader to sections of the final report that elaborate upon the information provided here.

# EXECUTIVE SUMMARY

*Volume I*
*Chapter I*

## THE PDC PROGRAM

The Administration for Children, Youth, and Families (ACYF) initiated Project Developmental Continuity (PDC) in 1974 as a Head Start demonstration project. ACYF's goal was to stimulate the development of programs that coordinated educational and other services to children and families from Head Start through children's third grade year in public elementary school. Through PDC, ACYF sought to reduce the discontinuities that children normally experience moving from Head Start centers into public schools and from home to school, discontinuities that were thought to impede learning and development particularly among children from low income and minority backgrounds. It was hoped that by increasing *developmental continuity* PDC would enhance children's *social competence*—their everyday effectiveness in dealing with the environments of home, community, and school.

The concept of developmental continuity has shaped Head Start from its beginnings, and has in turn been shaped by the Head Start experience. The three continuity assumptions on which PDC was based are central tenets of Head Start philosophy and programming:

- *growth and learning occur as gradual and continuous processes;*

- *development is enhanced when programs are planned according to each child's needs, flow out of previous experience in and out of home, and offer an orderly sequence of increasing complexity;*

- *the education of the child begins with the family and, therefore, the family's influence, stake and role in a child's development must be explicitly acknowledged in any early childhood program.*

PDC differed from conventional Head Start programs by applying the concept of developmental continuity beyond the realm of Head Start in the context of public elementary schools.

The basic PDC program model was defined in formal Guidelines issued by ACYF. These Guidelines specified *institutional features* that should be present in all participating centers and schools, providing local projects with

a common framework for developing fully operational programs that both realized ACYF's intentions and met specific local needs. PDC Guidelines were organized into seven component areas:

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*Table III 2*

- **Administration**—requiring special function staff and specific decision-making structures for project development and management.

- **Education**—requiring coordinated curriculum planning and review by teachers at all levels (Head Start through third grade); a continuous, developmentally appropriate curriculum from Head Start through third grade; and individualized instruction supported by effective management information systems (e.g., diagnostic testing, record keeping and transmittal).

- **Bilingual/Bicultural/Multicultural Education**—requiring specific attention to the educational needs of children from different cultural-linguistic backgrounds through the implementation of coordinated programs from Head Start through third grade.

- **Services for Handicapped Children**—requiring early diagnosis, coordinated programming from Head Start through third grade, an annual survey of handicapped children, and mainstreaming whenever possible.

- **Parent Involvement**—requiring a coordinated parent involvement program from Head Start through third grade, the use of parents as resource persons in the classroom both on a volunteer basis and as paid aides, and parent participation in project management as per requirements under Administration.

- **Developmental Support Services**—requiring the provision of coordinated nutritional, medical, dental, mental health, and social services from Head Start through third grade; screening, maintenance of continuous records, and communication of health information to parents; and provision of information to parents about health resources in the community.

- **Training**—requiring ongoing training of teachers and parents related to all PDC component areas.

It was anticipated that implementation of these Guidelines would cause systematic changes in the behaviors of teachers and parents toward children, changes that would increase developmental continuity and enhance children's social competence.

ACYF selected fifteen Head Start grantees in different communities across the country to participate in PDC. Each project was given two years to develop and implement a fully operational PDC program before evaluation of program impacts began. Over the course of the project, ACYF contracted with two firms to provide technical assistance to local projects

in their efforts to operationalize PDC Guidelines and general objectives within local contexts. Support for local projects terminated at the end of the 1980-81 school year.

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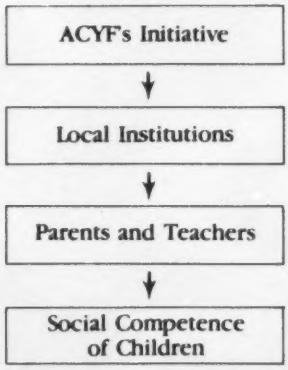
## THE PDC EVALUATION

An evaluation ran concurrently with the program. The evaluation of PDC was designed to focus on one cohort of children (together with their parents and teachers) who entered Head Start in the fall of 1976 and were expected to graduate from third grade in the spring of 1981. Only twelve sites implemented PDC programs over this entire period, and only ten of these conformed sufficiently to the requirements of the evaluation to be included in the longitudinal study reported here.

The evaluation design was *quasi-experimental*—i.e., program impacts were estimated by comparing outcomes for PDC children, parents, and teachers with outcomes for similar (but not randomly selected) non-PDC children, parents, and teachers in the same communities. ***Both PDC and non-PDC children had attended Head Start,*** but only PDC children went on to attend the elementary schools participating in the PDC program. Data analysis was conducted first at the site level, then over all sites. The data analytic strategy was designed to control for possible bias in outcome measures resulting from pre-existing differences between PDC and non-PDC samples. The findings reported here are based on a synthesis of multiple analyses.

PDC can be viewed as a multi-step intervention, originating in ACYF's initiative (devising Guidelines, awarding grants, providing technical assistance) but requiring changes in local institutions and in the behaviors of teachers and parents to achieve its ultimate objective of enhancing children's social competence:




The evaluation of PDC assessed impacts of the intervention at each step subsequent to ACYF's initiative. Evidence of program impacts is summarized in

the next section, working backwards through these steps from children—the ultimate focus of the intervention—to local institutions—the initial targets of ACYF's change strategy.

## FINDINGS OF PROGRAM IMPACT

### Impacts on Children

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*Chapter VI*

*There was very little evidence that local PDC programs enhanced children's social competence—the ultimate objective of ACYF's demonstration program.*

At no site was children's participation in PDC associated with generally positive effects across the five outcome domains measured: Specific Academic Achievement, General Academic Skill/Aptitude, Learning Attitude/Style, Attitude toward Teacher/School, and Social Development/Adjustment. Rather children with Head Start backgrounds who attended PDC schools were found to be quite like Head Start graduates who attended non-PDC schools in the same communities, at least through third grade when the evaluation terminated.

The only hint of a possibly generalized PDC-favoring effect was found for the outcome domain termed *Learning Attitude/Style*. During the early elementary years, PDC children at three of ten sites were found to exhibit more positive learning attitudes/styles. Furthermore, a general PDC-favoring trend across all ten sites was indicated by aggregate tests. However, PDC-favoring findings for this domain were not paralleled by findings for other domains, and the implications of observed differences in children's learning attitude and style for later social competence are not known.

### Impacts on Parents

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*Chapter IV*

*There was little evidence that local PDC programs affected the behavior of former Head Start parents whose children were in the evaluation sample.*

At only one site were PDC-favoring effects found for parents of children in the evaluation sample for both of the outcome domains measured: Involvement in School and Parent as Educator (of own child outside school). Differences in one or the other outcome domain favored PDC parents at two sites and non-PDC at two. At half of the sites, no differences were found in either domain.

However, parents of Head Start graduates in the evaluation sample were only a small fraction of all parents whose children attended PDC and non-PDC schools. And information about "parents in general" suggested that they were somewhat more likely to be present and actively involved with pupils in PDC than non-PDC classrooms. In fact, PDC-favoring differences

were found at several sites, and a PDC-favoring trend was found over all sites with regard to this larger group of parents. Thus, PDC parent involvement efforts may have been more successful with "parents in general" than with the small group of former Head Start parents whose children were in the evaluation sample.

No systematic relationship was found between findings for either group of parents and outcomes for children in the evaluation sample.

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## Impacts on Teachers and Classrooms

*There was considerable evidence of difference between PDC and non-PDC teachers and classrooms; however, observed differences as often favored non-PDC as PDC teachers/classrooms and had no detectable influence on measured child outcomes.*

At no site were PDC-favoring effects found for all outcome domains measured: Promotion of Parent Involvement, Classroom Environment, Educational Management, PDC-Encouraged Instructional Content, and Learning Time. However, fairly generalized cross-site effects were found within all domains except Classroom Environment. These generalized effects favored PDC teachers/classrooms in two domains and non-PDC in the other two.

Regarding Promotion of Parent Involvement, PDC teachers were more likely than non-PDC teachers to exhibit positive attitudes toward involving parents in classroom activities at two sites, and on the average over all sites; they were also somewhat more successful at actually getting parents involved at five sites, and on the average across all ten sites. These findings relate to "parents in general" rather than specifically to parents of children in the evaluation sample (see discussion of impacts on parents, above). As for the degree to which teachers emphasized PDC-Encouraged Instructional Content (health/nutrition, multicultural, community resources), site-level findings were mixed, some favoring PDC and others, non-PDC classrooms. Nevertheless, on average across all sites these aspects of curriculum tended to receive more emphasis in PDC than non-PDC classrooms. These differences between PDC and non-PDC teachers/classrooms had no obvious implications for measured child outcomes, and no relationship was found.

Differences in Educational Management and Learning Time clearly favored non-PDC over PDC teachers and classrooms. Non-PDC teachers were judged to be more effective managers of the instructional and social processes in their classrooms at two sites, and a non-PDC favoring trend was found over all sites in aggregate analyses. Non-PDC children were observed to spend more time than their PDC peers engaged in academic learning activities at four sites, and on average across all ten sites.

Observed differences in Learning Time and Educational Management favoring non-PDC clearly were not intended by ACYF but may have resulted indirectly from the PDC innovation. Specifically, secondary analyses suggested that these differences might, in part, be due to differences in the prior

teaching experience of PDC and non-PDC teachers, PDC teachers being less experienced on the average. In turn, differences in level of experience appear to have been caused by selection pressures created by the PDC innovation that favored younger and less experienced teachers over older and more experienced ones. Another possible explanation, that could not be put to a quantitative test but was suggested by qualitative data, was that PDC teachers tended to allocate somewhat more time than non-PDC teachers to activities that were not strictly academic and not particularly "orderly," in keeping with PDC objectives to provide for the developmental needs of the whole child. Although these findings were worrisome, it should be noted that non-PDC-favoring differences in the amount of time devoted to academic learning by the average child were *not* associated with lower levels of academic skill or achievement among PDC children in the evaluation sample.

## Impacts on Institutions

*The institutional features prescribed by the PDC Guidelines were not fully and consistently implemented at any site, and non-PDC schools often incorporated "PDC features." Nevertheless, PDC schools were found to differ from non-PDC schools at a majority of sites in the degree to which they incorporated features associated with three components of the basic model—Administration, Parent Involvement, and Developmental Support Services.*

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The entire configuration of institutional features defining the basic PDC program model was not fully implemented at any site. Moreover, there were varying degrees of inconsistency over time in the implementation of particular model components at every site. Overall levels of Guideline implementation were typically moderate.

Overall differences between PDC and non-PDC schools with respect to prescribed institutional features were found at only four sites, in spite of the fact that all local PDC projects achieved at least moderate overall levels of Guideline implementation. At one site the overall similarity of PDC and non-PDC schools was clearly the result of diffusion of the PDC model within the local school district; at other sites, more complex forces at local, state, and federal levels seem to have been responsible for the institutional similarity of PDC and non-PDC schools.

The areas of greatest difference between PDC and non-PDC institutions were Administration (specialized staffing and decision-making structures), Parent Involvement (coordination of elementary school and Head Start programs, hiring of parents as aides, training of parents), and Developmental Support Services (coordinated provision of nutritional, medical, dental, mental health, and social services from Head Start through third grade). Modest PDC/non-PDC differences were found for these three components at a majority of sites.

There was little evidence of relationship between findings of institutional difference and observed impacts on teachers/classrooms, parents, and children. However, actual levels of parent involvement (for "parents in general" if not for parents of children in the evaluation sample) did tend to be higher for PDC than non-PDC samples in sites where institutional provisions for parent involvement were greater in PDC than non-PDC schools.

### Summation

*The findings of the evaluation suggest that (1) the program model intended by ACYF was not fully realized anywhere, (2) local versions of PDC had few impacts on parents and teachers that were likely to enhance children's social competence, and (3) children's social competence was not generally enhanced by their participation in the PDC program.* Next, we consider why the evaluation failed to demonstrate PDC's effectiveness.

## EXPLANATION OF FINDINGS

There would seem to be four possible explanations of why the evaluation failed to demonstrate PDC's effectiveness in enhancing children's social competence:

- The assumptions about child development underlying PDC are incorrect.
- The translation of these assumptions into action was faulty.
- The translation of these assumptions into action was occurring in participating communities independently of PDC.
- The evaluation design and methodology were inadequate to detect the program's positive effects on children's social competence.

These competing explanations are not mutually exclusive, and each may have some validity.

### Incorrect Assumptions?

PDC grew out of a complex set of assumptions about factors influencing the development of social competence among children, specifically children from low income and minority backgrounds. Relatively few of these assumptions were explicit, and fewer still had developed to the point of being testable hypotheses when the project got underway in 1974. The evaluation was not designed to test specific hypotheses about child development and has not done so. Rather, the evaluation was designed to determine whether a

program of action shaped by this collection of assumptions would significantly improve the social competence of Head Start children during their first few years in elementary school.

In our judgment, the collection of assumptions underlying PDC were insufficiently realized in operational programs for the results of this evaluation to significantly challenge their correctness. Problems surrounding the translation of PDC assumptions into action are considered in the next section.

## Faulty Translation?

The translation of ACYF's assumptions about factors influencing children's social competence into action involved two major steps. First, ACYF officials developed a *conceptual program* shaped by their assumptions about factors influencing the development of social competence and representing their intentions for PDC programs that would operate in field settings. Next, local projects developed *operational programs* that were supposed to realize ACYF's intentions in ways appropriate to local settings.

How well ACYF's conceptual program reflected their underlying assumptions about child development is debatable. What is not arguable is ACYF's intent that local projects would demonstrate this conceptual program in action and that we would evaluate this demonstration. Toward that end the evaluation has involved not only an assessment of program impacts but an ongoing assessment of the degree to which ACYF's intentions were actually implemented by local projects.

Findings of the evaluation raise serious questions about the fidelity of the operational programs to ACYF's intentions. Systematic evaluation of the fidelity of the operational programs was limited to those program features, operationally defined in the PDC Guidelines and required of each project under the terms of their grants. Even with respect to these macro-institutional features, local programs were not found to have fully or consistently implemented ACYF's intentions. If these findings are to be believed (and we believe they are), then what we evaluated were imperfect renderings of ACYF's conceptual program, truer to intentions in some aspects (e.g., provision of comprehensive nutritional, medical, dental, mental health, and social services) than in others (e.g., coordinated educational programming from Head Start through third grade).

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As for how well ACYF's ultimate intentions of increasing the continuity of children's experience were realized, evidence from the evaluation is less extensive and direct. However, findings related to teacher and parent outcomes, together with the "ordinary perceptions" of site visitors, suggest that operational PDC programs did little to alter children's experience during the early years of school in ways suggested by ACYF's conceptual program. That being the case, one would not expect to find evidence of PDC's having generally enhanced children's social competence, and we did not.

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In sum, available evidence strongly suggests that the translation of the PDC concept into operational programs was faulty.

### PDC Not Innovative?

A third explanation of why the evaluation failed to demonstrate PDC's general effectiveness might be that the PDC concept was not innvoative—i.e., when implemented, did not create programs that were significantly different from other programs in the same communities. Many of the assumptions underlying PDC and the operational strategies embodied in ACYF's conceptual program were not unique to PDC, but reflected notions and values that were part of the zeitgeist. Since this same zeitgeist affected individuals and institutions at PDC sites, both indirectly and directly through other federal and state programs, it was inevitable that non-PDC schools would embody some of PDC's intended features.

State and then federal laws (P.L. 94-142) regarding the education of handicapped children gradually affected all schools considered in the evaluation, realizing many of ACYF's intentions for services to handicapped children quite independently of PDC. Concern with parent involvement was also becoming more general within local educational systems when PDC commenced as a result of other federal programs (Title I, Title VII, Emergency School Aid Act, Follow Through) and as a result of the growing appreciation by school administrators that parental support was needed to raise school revenues during a period of declining enrollment and economic retrenchment. In some measure, instructional approaches were also changing in directions intended by ACYF though quite apart from ACYF's initiative. Over the course of the project all participating school districts pressed for, and most mandated, continuous curriculum (from kindergarten, if not Head Start, through third grade and beyond), diagnostic testing, and some variety of more individualized instruction. And in one site, the PDC project, supplemented by other resources, was used to develop a bilingual program that was then diffused in large part to all schools in the community so that the district might comply with court orders.

But even though elements of the PDC concept became less innovative over the life of the project as a result of larger social changes, full implementation of ACYF's intentions for operational PDC programs continued to require significant change in local institutions, particularly with respect to linkages between Head Start and elementary schools.

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### Inadequate Evaluation?

It is possible, of course, that local PDC programs generally and significantly enhanced children's social competence but that the evaluation failed to detect these impacts on children. If so, the evaluation must also have failed

to detect the sorts of differences between PDC and non-PDC programs, and specifically between the experiences of PDC and non-PDC children, that would have caused differences in child outcomes.

The limitations of the evaluation design and methodology are summarized briefly below:

- The power of statistical tests to detect program effects at the site level was low given small sample sizes resulting from extremely heavy attrition.

- The data analytic methods employed may have failed to control for bias in outcome measures due to observed pretreatment differences between PDC and non-PDC parents and children.

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- The final analytic sample of parents and children was not fully representative of the sample entering the program in 1976, much less the larger group of parents and children served over the life of the project. And parents and children in the analytic sample may have responded less or differently to the PDC program than a more representative group would have.

- Measurement of impacts at all levels—institution, parent, teacher/classroom, and child was limited and sometimes of dubious reliability and validity. Thus, important impacts—such as nonacademic dimensions of children's social competence—may not have been measured at all or may have been measured inadequately.

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- The program's impacts, particularly on children, may only be evident after third grade, beyond the temporal scope of the evaluation.

Though we do not rule out these possible explanations of the evaluation's failure to demonstrate PDC's general effectiveness, it seems unlikely that the repeated and fairly broad-band measurements taken in this evaluation would not have revealed more evidence of impact at some level of the intervention had such impacts occurred at most, or even several, sites.

## The Problem of Implementation

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*Chapters I-III*

Of the possible explanations that we have examined in considering why the evaluation failed to demonstrate PDC's effectiveness, one would seem to be most powerful and to take priority over the others—that the translation of ACYF's concept of PDC into action was incomplete and inconsistent. If the intended program was not implemented, then no test of underlying assumptions would have been possible, the intended program could not have been evaluated, and it would not matter how innovative the concept was in relation to what was already happening in local communities.

The difficulty of implementing planned social change has received increasing attention from social scientists in recent years. All major federal

demonstration projects—Follow Through, Planned Variation Head Start, and others—have experienced serious problems with program implementation, that is with getting intended programs actually implemented in field situations. PDC appears not to have been an exception to this rule, in spite of the fact that ACYF's change strategy tempered the highly directive approaches of early demonstrations with a strong reliance on *local problem solving* intended to encourage local ownership of and commitment to the program.

ACYF identified and defined the general problem to be addressed by PDC, outlined a general approach for addressing the problem, offered technical assistance in solving the problem by way of a private contractor, and provided each site with modest financial resources to get the job done. The rest was left up to local PDC projects situated in communities where representatives of the school system and of Head Start (which was sometimes administered through the district) had professed commitment to translating the concept of PDC into action.

The fact that local projects did not fully implement the PDC concept was a function of many variables internal and external to the project. Our evaluation of the implementation process revealed four major categories of factors that impeded implementation:

- Commitment to the innovation was inadequate to see the project through.
- Problem-solving capacity was inadequate to realize ACYF's intentions.
- Organizational structures/values impeded the innovation.
- Environmental forces/conditions impeded or blocked the innovation.

Although several PDC projects were remarkably successful in securing commitment to the program and had access to substantial problem-solving capacity, none was able to avoid or overcome all countervailing organizational and environmental factors.

### Commitment to Innovation

Though commitment to an innovation is not sufficient for its ultimate success, innovation will *not* occur without commitment on the part of individuals at critical positions in the system. Creating and maintaining commitment to the PDC innovation was problematic at most sites.

At the higher levels of school district management, initial commitments were of questionable substance and generally ephemeral. The larger the district, the more ephemeral the commitment, other things being equal. Practically speaking, PDC grants represented very minor elements in most school district budgets. Moreover, the problems addressed by PDC tended to be chronic and not immediately threatening to organizational well-being, while other problems in the organizational environment demanded full and immediate attention—growing financial difficulties, court-ordered desegregation, state-mandated curriculum reform, and the like.

Commitment at lower levels in the educational system (principals, teachers, PDC staff) and in the community (particulary parents of children in the program) was also difficult to create and sustain in some sites. By and large, these persons had not been involved in decisions to implement PDC but had to be brought along after the fact. It should be noted that commitment to the innovation was generally high among staff directly supported by PDC grants (project coordinators and coordinators of parent involvement and developmental support services); however, they were frequently not in good positions to marshall the commitment of others—often standing outside line management, being largely unable to manipulate extrinsic rewards to encourage commitment, and competing with other innovation efforts for the limited attention, time, and good will of teachers, principals and others. Building strong coalitions of persons committed to the innovation was further impeded by turnover of personnel at all levels in the system and turnover among families served.

Innovation is not always its own reward. Unless satisfaction is derived from the process of innovation, the commitment of those involved will wane, or fail to develop in the first place. The innovation process was not satisfying to numerous teachers, many of whom eventually transferred, or were transferred, out of PDC: some felt threatened by the wave of change that PDC caused; some felt overburdened by the demands of program development on top of already heavy teaching loads; and some seriously doubted the educational value of the curriculum changes that PDC introduced. The apparent lack of commitment to or even interest in PDC at higher levels in school systems and Head Start agencies in some communities also cast a pall on commitment at lower levels, since part of the satisfaction derived from innovation is recognition and appreciation by others, particularly persons in authority. It appears that ACYF contributed to this problem by directing ever less attention to local programs over the life of the project as agency staff turned over and got caught up in other projects and concerns. As the end of PDC funding neared with no sign of continuation by either the federal government or local district, commitment and implementation decayed rapidly at most sites.

### Problem-Solving Capacity

ACYF's approach to innovation in PDC relied heavily upon the capacity of local agencies to solve problems related to both program development and implementation. In retrospect, it appears that ACYF overestimated local problem-solving capacity and allowed some projects to be put in organizational positions that made it difficult to draw upon the problem-solving capacities of local school systems.

As mentioned already, the conceptual program defined in the PDC Guidelines did not provide operational recipes for most aspects of the program, nor were PDC's objectives—developmental continuity and social

competence of children—defined in immediately measurable ways. Thus, when sites bought into the PDC idea, a PDC reality was but vaguely imagined. And soon after funding began, many who were involved in the innovation process wondered what on earth they were supposed to do. Major institutional features, operationally defined and required by the Guidelines, could be put in place, the larger system willing, but training, classroom, and parent programs by which the intervention might affect children had to be found or developed.

The scale of the *program development* problem varied substantially from one site to another. In part, this was due to the fact that participating schools and school systems varied greatly in the degree to which they already embodied major features of the PDC concept. And in part, the size of the development problem was a function of local understanding of and commitment to the PDC concept; ironically those who best understood ACYF's intentions may have set themselves impossible development (and implementation) tasks. R&D experience and expertise also varied considerably across sites in ways that did not necessarily match the size of the program development problem. However, grants to local projects and the time allotted for development did not vary according to the scale of development efforts or local problem-solving capacities, but were roughly the same for all sites.

The scale of the *program implementation* problem also differed considerably from one site to another, depending both upon the nature of the program developed and upon the nature of the organizational and community contexts within which program implementation was undertaken. When implementation of a PDC program component required little change in the existing system, problems of implementation tended to be few and small. When implementation required substantial change, problems proliferated. In some instances no amount of virtuoso change agentry would have overcome the obstacles to implementation given prevailing values and norms, larger organizational needs, legal constraints, and so on. However, in other cases, a different approach to implementation might have succeeded, but change agents did not have adequate tactical repertoires. Frequently, problem-solving capacity was also constrained because individuals in key organizational positions, whose clearance was necessary for implementation, were not sufficiently committed to the innovation even though the proposed change did not conflict with specific organizational needs and values.

Staff turnover also affected problem-solving capacity—sometimes for the better, often for the worse as committed and experienced PDC innovators moved on to other things. And there was a suggestion at some sites that innovative staff may have burned themselves out in overly demanding development efforts, leaving little energy or will to implement.

ACYF did not ignore the limitations of local problem-solving capacity in designing their intervention strategy. On the contrary, they anticipated local

needs for additional problem-solving support by offering technical assistance through private contractors. (One firm provided technical assistance in phase I; another, in phase II of the project.) However, this provision was not sufficient to meet local needs. In part, the problem with technical assistance was a function of inadequate problem-solving capacity among technical assistants who did not always share ACYF's vision of PDC and/or could not themselves solve the problems of translating this vision into action. And in part the problem resulted from the inability of local PDC projects to effectively utilize the technical assistance resources offered.

### Organizational Structures/Values

PDC projects were placed in organizational contexts that were not always conducive to effective Head Start-school linkage. Of particular significance for implementation was the nature of existing organizational relationships between Head Start and the public schools and the structural relationship of the local PDC projects to this existing system. In some sites, Head Start was managed by the school district while in others Head Start was managed by completely independent agencies (Community Action Agencies) accountable only to regional Head Start offices and ACYF. In some sites, Head Start classrooms were located in elementary schools, and PDC projects operating in these sites were considered examples of Early Childhood Schools; the remaining PDC projects were referred to as Preschool-School Linkage models. Finally, the relationship of PDC projects, by way of the PDC coordinator, to line management in Head Start and/or the public schools varied considerably. Suffice it to note here that linkage tended to be more effective over the course of the project when (1) Head Start was managed by the local school district, (2) Head Start classes were located within the elementary school, *and* (3) the PDC coordinator was in a line management position with respect to teachers (sometimes as principal, sometimes as an assistant principal). This optimal situation obtained at five sites. At sites where other organizational arrangements prevailed, very considerable effort was required to build organizational bridges, which were at best fragile and in constant need of repair. Under such circumstances, implementation was found to be less consistent over time, typically declining as personnel turned over and initial commitments wore thin.

PDC also went against the grain of certain deep-seated values and attitudes prevalent in most school settings. Many teachers and principals did not view parents as significant educational resources that might be more effectively utilized by the school; similarly, many did not believe that schools should attempt to assume responsibility for the "whole child" but rather that they should attend to children's specific academic needs leaving the rest up to parents and the everyday experiences of growing up. Another area in which values and attitudes impeded the innovation involved communication and collaboration between Head Start and elementary school teachers.

Regardless of physical proximity the social distance between these two groups, resulting from professional and socioeconomic differences, remained an obstacle to substantive linkage of Head Start and elementary programs at most sites.

### Environmental Forces/Conditions

Local implementation efforts frequently met with countervailing forces and conditions in their organizational, community, and larger environments that simply could not be overcome, however ingenious local problem-solving might have been. Some of these factors were present prior to PDC but were not recognized or were underestimated by would-be innovators. Other factors emerged during the life of the project and could not have been anticipated.

All the PDC projects were subject to economic forces beyond local control—high inflation, recession, and budget cutbacks. Inflation dramatically eroded the purchasing power of relatively stable PDC grants from 1974 through 1981, making it necessary to reduce project staffing and other expenditures at all sites. School district budgets were also affected by general economic conditions, often in conjunction with declining enrollment, high wage settlements for teachers, and public refusal to approve property tax levies sufficient to meet school district operating costs. The consequences of budgetary retrenchment—reductions in classroom teaching staff, reassignment of teachers, shortened class days (at least temporarily), diminished provision of inservice training and release time, and cuts in specialist staff and special activities—were experienced in some measure by all sites during the last three years of the project. And implementation of the PDC program was negatively affected by such economic factors at every site.

Changes in educational policy at federal, state, and local levels frequently interfered with implementation of PDC programs, sometimes impeding implementation and sometimes blocking it and forcing revisions in the PDC program. Bilingual education policies, for example, were very much in flux during the life of PDC, and changes in these policies at district and/or state levels forced changes in PDC bilingual programming at all three bilingual demonstration sites. Growing concerns with accountability in education and effective teaching of basic skills led several states and most local school districts to develop and implement certain universal instructional standards and, in a number of cases, universal materials and methods. To the extent that PD evaluation systems and curricula contradicted what was mandated by higher authority, PDC programs were compelled to change. Though mandated changes did not usually require abandonment of the entire PDC concept, they frequently meant giving up certain unique features of PDC that reflected ACYF's concern with the "whole child" not merely the "academic child."

High residential and job mobility are conditions of contemporary American life that PDC could not alter. Over the course of the project, high

mobility produced turnover at all levels of PDC: ACYF program staff changed; local PDC project staff changed; technical assistance contractors changed; technical assistance staff within contractors changed; school district and Head Start personnel at all levels changed; children and parents came and went in great numbers. Maintaining commitment and problem-solving capacity under such conditions was extraordinarily difficult. For example, to the extent that teaching in PDC was different from teaching in conventional programs, each new teacher had to be socialized into the PDC culture. The socialization of new teachers into the program relied in part upon informal processes—daily interactions with other teachers and members of school and project staff. However, unless old and new hands engaged in team teaching, which was an uncommon arrangement in PDC, old hands had relatively little direct knowledge of, much less direct influence on, the educational process in classrooms run by new teachers. Thus, socialization of new hands also necessitated more formal processes—specifically training in the program model. But project investments in training were never as high as ACYF expected and decreased over time due to various factors including declining project and district resources and changes in union contracts limiting the demands that could be placed upon teachers outside normal school hours. Consequently, efforts to gain commitment from and change the behavior of new recruits were seriously impeded.

The various problems posed by high residential and job mobility among persons participating in PDC at all levels call into question the fundamental viability of the PDC innovation in contemporary society. Turnover among teachers and staff made it difficult or impossible to provide children with developmental continuity in the context of school. Even had optimal developmental continuity been achieved in Head Start-school contexts, there would have been no way of keeping children within these optimal environments. Indeed, 73% of children entering the PDC program at Head Start were no longer enrolled in PDC schools by third grade. And at several sites PDC was perceived to have increased the discontinuity experienced by mobile children by offering an educational program substantially at variance with district norms. Participant turnover was least problematic at the one site where major features of the local PDC program were adopted by the district for all elementary schools.

### Summation

ACYF's attempt to demonstrate the PDC concept met with myriad obstacles. Hindsight suggests that some obstacles might have been avoided by employing a different change strategy at the federal level, while others might have been avoided by promoting a more modest innovation. But some obstacles simply could not have been anticipated or overcome; rather, innovators at all levels had to adjust to or live with circumstances in their environments over which they had no control.

Collectively, the many federally sponsored innovation efforts of the past two decades—regardless of their individual success—have inarguably al-

tered American education particularly with respect to its treatment of economically disadvantaged and minority children. Though PDC was not fully implemented anywhere insofar as we could determine, the effort to put the PDC concept into action certainly left its mark on many individuals and institutions, contributing in some measure to incremental change in the values, norms, and actual programs that ACYF sought to influence.

## CONCLUSIONS

In spite of considerable uncertainty, we feel it our responsibility to venture a "best guess" as to meaning and implications of the evaluation's findings.

***In general, local PDC programs do not seem to have provided children with experiences that were importantly and systematically different from the experiences of similar non-PDC children in the same communities. For this reason alone, quite apart from the evaluation's findings related to impacts on children, we do not believe that PDC generally and significantly enhanced children's social competence.***

***The relative lack of significant differences in the proximate environments and experience of PDC and non-PDC children seems to have resulted from (1) incomplete and inconsistent implementation of ACYF's intentions in local PDC programs and (2) concurrent changes in non-PDC schools that significantly reduced actual and potential program differences at the local level. Problems of implementation might have been reduced by ACYF's employing a different change strategy; however, changes in non-PDC schools that made them more like the PDC model were historical "accidents" that could not have been avoided but might be viewed as partially vindicating the PDC concept.***

***The evaluation of PDC was both flawed and premature. Some of its flaws could have been avoided—e.g., by having better anticipated the occurrence and limiting effects of sample attrition. Other flaws simply reflected the current state of the art—e.g., the unavailability of adequate measures of social competence and the rudimentary nature of the construct. Hindsight also suggests that the summative evaluation was undertaken prematurely, not simply before adequate methodology had been developed,***

*but before there was any substantial evidence that local PDC programs were affecting children's experience in ways that were importantly different from what happened in the community at large.*

*The lessons learned from PDC do not suggest that the notion of linking Head Start with elementary school programs is either wrong or futile. Neither should we conclude that planned social change or useful evaluation is impossible. Rather, the PDC experience, together with the experiences gained in similar initiatives over the past decade, teach us humility and suggest that future efforts be more modest, focused, and informed by past experience and careful program and evaluation design.*